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EXAMINER

CHEVALIER, ALICIA ANN

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| ART UNIT | PAPER NUMBER |
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1772

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,133

Applicant(s)

BROWN, WARD THOMAS

Examiner

Alicia Chevalier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

RESPONSE TO AMENDMENT

1. Claims 1-7 are pending in the application. Claims 8-17 are cancelled.

REJECTIONS REPEATED

2. The 35 U.S.C. §102 rejection of claims 1 and 6 over Bailey (US Patent No. 4,950,525) is repeated for reasons previously made of record in paper #15, mailed August 21, 2003, pages 3-5, paragraph #11.

Bailey discloses retroreflective sheeting comprising a first coating comprising a pigment and a binder polymer, reflective spherical glass beads, and a clear coating comprising binder polymer (*col. 2, lines 5-26, col. 3, line 68 and col. 10, lines 20-23*). The retroreflective sheeting is used as a traffic (pavement) marker on the surface of the road (substrate) (*col. 9, lines 30-33*). The materials of the top and spacing films or layers should be compatible with one another and adapted to form a good bond together and may further comprise ultraviolet light absorbers (*col. 7, lines 47-65*).

With regard to the transitional phrase “consisting essentially of”, the examiner reminds applicants that “[t]he transitional phrase “consisting essentially of” limits the scope of a claim to the specified materials or steps “and those that do not materially affect the basic and novel characteristic(s)” of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original)” (MPEP § 2111.03). The MPEP explicitly states “[f]or search and examination purposes, absent a clear indication in the specification of what the basic

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and novel characteristics actually are, “consisting essentially of” will be construed as equivalent to “comprising.”

The MPEP further states “[w]hen an applicant contends that additional steps or materials in the prior art are excluded by the recitation of “consisting essentially of,” applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention”. In the court case cited in the MPEP, it should be noted the court’s finding that “the court noted that appellants’ specification indicated the claimed composition can contain any well-known additive such as a dispersant, and there was no evidence that the presence of a dispersant would materially affect the basic and novel characteristic of the claimed invention. *The prior art composition had the same basic and novel characteristic (increased oxidation resistance) as well as additional enhanced detergent and dispersant characteristics*” [emphasis added] MPEP § 2111.03.

In the instant case, the transitional phrase “consisting essentially of” will be construed as equivalent to “comprising,” because the additional layers in Bailey do not materially affect the basic and novel characteristic(s)” of the claimed invention. The specification in the summary of the invention on pages 2-3, the basic and novel characteristics of the invention is a composite on a surface of a substrate, wherein the composite includes a first coating including pigment and binder polymer, reflective beads, and a clear coating including binder polymer. The additional layers between the road surface (applicants claimed substrate) and the composite do not materially affect or alter the function of the composite on the substrate.

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3. The 35 U.S.C. §103 rejection of claim 2 as over Bailey (US Patent No. 4,950,525) in view of Ochi et al. (US Patent No. 5,821,316) is repeated for reasons previously made of record in paper #15, pages 5-6, paragraph #12.

Bailey discloses all the limitations of the instant claimed invention except it does not show that the binder polymer has a glass transition temperature of -10°C to 70°C.

Ochi discloses retroreflective sheeting comprising a first coating comprising a binder polymer, reflective spherical glass beads, and a clear coating comprising binder polymer (*col. 2, line 59 to col. 3, line 34*). The binder polymer has a glass transition temperature not higher than 35°C and provides a high bonding strength between the clear coating and the first coating (*col. 2, line 59 to col. 3, line 34*).

Bailey and Ochi are analogous because they both discuss retroreflective articles.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use Ochi's binder polymer with a glass transition temperature not higher than 35°C as the binder polymer in Bailey because it would provide high bonding strength between the clear coating and the first coating (*Ochi col. 2, line 59 to col. 3, line 34*). Bailey supplies motivation to use Ochi's binder in its sheeting by teaching that the materials of the top and spacing films or layers should be compatible with one another and adapted to form a good bond together (*Bailey col. 7, lines 47-65*).

4. The 35 U.S.C. §103 rejection of claims 3-5 as over Bailey (US Patent No. 4,950,525) in view of Araki et al. (US Patent No. 5,714,223) or Abe et al. (US Patent No. 5,988,822) is repeated for reasons previously made of record in paper #15, pages 6-7, paragraph #13.

Bailey discloses all the limitations of the instant claimed invention except for the claimed feature that the clear coating has a percent visible light transmission of 80-100%, 85-100% or 90-100% when measured at a coating thickness of 500 microns.

Araki discloses retroreflective sheet comprising a cover layer with a transmission to all light of at least 90% for the purpose of increasing a reflection luminance and stability of the reflection luminance with time (retention of reflection luminance) (*col. 4, lines 7-10*).

Abe discloses a retroreflective sheeting comprising a transparent protective film having light transmission of preferably at least 90%. The light transmission of the film is preferably relatively high, so that light retroreflected from a distant source and light generated from the light generating beads is minimally degraded (*col. 3, lines 13-46*).

Bailey, Araki and Abe are analogous because they all discuss retroreflective articles.

In view of the teaching of Araki and Abe, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a cover layer with visible light transmission of at least 90% in Bailey's retroreflective sheeting in order to increase light reflection.

One of ordinary skill in the art would have been motivated to use a cover layer with at least 90% visible light transmission for the purpose of increasing a reflection luminance and stability of the reflection luminance with time (*Araki col. 4, lines 7-10*) and so that light retroreflected from a distant source and light generated from the light generating beads is minimally degraded (*Abe col. 3, lines 13-46*).

5. The 35 U.S.C. §103 rejection of claims 3-5 as over Bailey (US Patent No. 4,950,525) in view of Jacobs et al. (5,941,655) is repeated for reasons previously made of record in paper #15, page 7, paragraph #14.

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Bailey discloses all the limitations of the invention except for the claimed limitation that the composite comprises an absorber such as talc.

Jacobs discloses a glass bead retroreflective article comprising a base sheet constructed of a polymer and a particulate inorganic filler such as talc (*col. 8, lines 34-64*). Fillers are dispersed in the resin to reduce cost, improve durability and provide conformability (*col. 1, lines 33-36*).

Bailey and Jacobs are analogous because they both discuss retroreflective articles.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use Jacobs' talc as an inorganic filler in Bailey's binder layer in order to improve the properties of the binder layer.

One of ordinary skill in the art would have been motivated to add talc as an inorganic filler because the filler would improve the durability, provide conformability and decrease the cost of the polymer (*Jacobs col. 1, lines 33-36*).

ANSWERS TO APPLICANT'S ARGUMENTS

6. Applicant's arguments filed November 24, 2003 regarding the 35 U.S.C. §102 rejection of claims 1 and 6 over Bailey have been fully considered but they are not persuasive.

Applicant has requested clarification with regards to of the withdrawn rejection of Bailey in paragraph #2 of paper #15, which referred back to paper #5, pages 6-7, paragraph #6. The grounds of rejection over Bailey in paper #5, pages 6-7, paragraph #6 had to be withdrawn because of Applicant's amendment to claim 1, i.e. the addition of "consists essentially of." New grounds of rejections had to be made because of Applicant's new limitation, "consists essentially of," even though the Bailey reference still read on claims 1 and 6. This is because the previous

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grounds of rejection over Bailey in paper #5 did not address the new limitation. Thus, it necessitated the Examiner in paper #15 to make a new grounds of rejection even though she was still using the same reference.

Applicant argues Bailey does not anticipate claims 1 and 6 because Bailey's required additional structure is not encompassed by Applicant's claims. As stated in the previous office action, the transitional phrase "consisting essentially of" will be construed as equivalent to "comprising," because the additional layers in Bailey do not materially affect the basic and novel characteristic(s) of the claimed invention. Since the transitional phrase "consisting essentially of" is construed to be equivalent to "comprising," the fact that Bailey's retroreflective article includes additional structure not required by Applicant's invention, it must be noted that Bailey discloses the invention as claimed. The fact that it discloses additional structure not claimed is irrelevant.

Applicant argues that the Examiner's opinion that the additional layers in Bailey do not materially affect the basic and novel characteristic(s) of the claimed invention is unsupported by Bailey or by any explicitly cited extrinsic evidence. Applicant further stated that one skilled in the art would expect that any additional structure would require certain internal physical properties.

The MPEP § 2111.03 explicitly states "[f]or search and examination purposes, absent a clear indication in the specification of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." Applicant has pointed to the specification on page 2, lines 16-21 to supposedly indicate the basic and novel characteristics. The specification on page 2, lines 15-21 recites;

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“US-A-5,356,670, US-A-5,719,237, and US-A-5,726,244 disclose clear coating that may be applied over pigmented coatings to enhance such characteristics as gloss and wear resistance. Unfortunately, these coating systems, which do not include reflective beads, require a curing step at high temperature during preparation. The required curing temperatures of at least 60 °C, are not feasible for many applications, especially those involving the formation of traffic markings upon surface.”

This passage does not discuss how additional layers will materially affect the basic and novel characteristic(s) of the claimed invention. This passage discusses the failings of coatings without reflective beads, which is irrelevant since Bailey’s article comprises reflective beads.

The MPEP § 2111.03 further states “[w]hen an applicant contends that additional steps or materials in the prior art are excluded by the recitation of “consisting essentially of,” *applicant has the burden* of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention”. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons. The burden is on Applicant to provide evidence showing that the additional layers materially change the characteristics of Applicant’s invention.

Furthermore, attorney argument is not evidence unless it is an admission, in which case, an examiner may use the admission in making a rejection. See MPEP § 2129 and § 2144.03 for a discussion of admissions as prior art. The arguments of counsel cannot take the place of evidence in the record. See MPEP § 716.01(c) for examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration. MPEP § 2145.

7. Applicant’s arguments in the response filed November 24, 2003 regarding the 35 U.S.C. §103 rejections of record have been carefully considered but are deemed unpersuasive.

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Applicant argues that the primary reference in all the 103 rejections, Bailey, does not teach Applicant's structure nor does it teach or suggest a modification to Bailey's structure and that the Examiner has not met her burden to point to a clear and particular teaching within Bailey or any of the secondary reference, Ochi, Araki, Abe or Jacobs. Applicant's arguments regarding the supposed deficiencies of Bailey have already been addresses above.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ac

2/18/04



**SANDRA M. NOLAN
PRIMARY EXAMINER**